

What is claimed is:

- ✓ 1. A method of inhibiting tumor cell growth in a subject comprising administering to said subject a cytotoxic or a chemotherapeutic agent and a composition comprising an insulin-like growth factor receptor-1 (IGF-1R) inhibitor.
2. The method of claim 1, wherein said composition is administered concomitantly with said agent.
3. The method of claim 1, wherein said composition is administered within 48 hours after said agent.
4. The method of claim 1, wherein said composition is administered within 24 hours after said agent.
5. The method of claim 1, wherein said composition is administered within 12 hours after said agent.
6. The method of claim 1, wherein said composition is administered within 3-12 hours after said agent.
7. The method of claim 1, wherein said composition is administered over a preselected period of time.
8. The method of claim 2, wherein said preselected period of time is about 1 to 2 days.
9. The method of claim 1, wherein the dose of said agent is sub-therapeutic.
10. The method of claim 1, wherein the dose of said IGF-1R inhibitor is sub-therapeutic.

11. The method of claim 1, wherein the dose of said IGF-1R inhibitor is in an amount sufficient to cause hyperglycemia, ketosis or glucosuria.
12. The method of claim 1, wherein said IGF-1R inhibitor is a small molecule tyrosine kinase inhibitor, an anti-IGF-1R neutralizing antibody, or an IGF-1R antagonist.
13. The method of claim 12, wherein the small molecule tyrosine kinase inhibitor is ADW-742, NVP-AEW541, or analogs or isomers thereof.
14. The method of claim 12, wherein the IGF-1R antibody is  $\alpha$ -IR3.
15. The method of claim 12, wherein the IGF-1R antagonist is JB-1.
16. The method of claim 1, wherein said cytotoxic agent is radiation therapy.
17. The method of claim 1, wherein said chemotherapeutic agent is doxorubicin, melphalan or dexamethasone.
18. A method of inhibiting tumor cell growth in a subject comprising administering to said subject a first composition comprising a compound which lowers the concentration of insulin-like growth factor and a second composition comprising an insulin-like growth factor receptor-1 (IGF-1R) inhibitor.
19. The method of claim 12, wherein said concentration is serum concentration.
20. The method of claim 12, wherein said concentration is tumor microenvironment concentration.
21. The method of claim 12, wherein said IGF is produced by the liver.

22. The method of claim 12, wherein said IGF is produced by a tumor.
23. The method of claim 12, wherein said compound is a somatostatin or analogue thereof.
24. The method of claim 12, wherein said second composition is administered concomitantly with said first composition.
25. The method of claim 12, wherein said second composition is administered within 48 hours after said first composition.
26. The method of claim 12, wherein said second composition is administered within 24 hours after said first composition.
27. The method of claim 12, wherein said second composition is administered within 12 hours after said first composition.
28. The method of claim 12, wherein said second composition is administered within 3-12 hours after said first composition.
29. The method of claim 12, wherein said IGF-1R inhibitor is a small molecule tyrosine kinase inhibitor, an anti-IGF-1R neutralizing antibody, or an IGF-1R antagonist.
30. The method of claim 29, wherein the small molecule tyrosine kinase inhibitor is ADW-742, NVP-AEW541, or analogs or isomers thereof.
31. The method of claim 29, wherein the IGF-1R antibody is  $\alpha$ -IR3.
32. The method of claim 29, wherein the IGF-1R antagonist is JB-1.

- ✓ 33. A method of inhibiting tumor cell growth in a subject comprising administering to said subject a composition comprising an insulin-like growth factor receptor-1 (IGF-1R) inhibitor and an anti-diabetic agent.
34. The method of claim 30, wherein said anti-diabetic agent is an insulin polypeptide, an insulin sensitivity enhancer, and an insulin secretion enhancer.
35. The method of claim 34, wherein said insulin sensitivity enhancers is a thiazolidinedione or a biguanide.
36. The method of claim 34, wherein said insulin secretion enhancer is a glucosidase inhibitor.
37. The method of claim 30, wherein said IGF-1R inhibitor is a small molecule tyrosine kinase inhibitor.
38. The method of claim 37, wherein the small molecule tyrosine kinase inhibitor is ADW-742 , NVP-AEW541, or analogs or isomers thereof.
- ↓ 39. A method of inhibiting tumor cell growth in a subject comprising by administering to said subject a composition comprising a compound that decreases the expression or activity of an insulin-like growth factor receptor-1 (IGF-1R).
40. The method of claim 39, further comprising administering to said subject a composition comprising an insulin-like growth factor receptor-1 (IGF-1R) inhibitor.
41. The method of claim 39, wherein said compound decrease cell surface expression of said IGF-1R.

42. The method of claim 30, wherein said compound is a IGF-1R siRNA or an IGF-1R anti-sense nucleic acid.
43. The method of claim 30, wherein said compound:
  - a. inhibits intracellular trafficking of the IGF-1R;
  - b. inhibits post-translational modification of the IGF-1R;
  - c. enhances degradation or ubiquitination of the IGF-1R; or
  - d. disrupts the proper 3-dimensioal conformation of the IGF-1R
44. The method of claim 40, wherein said IGF-1R inhibitor is a small molecule tyrosine kinase inhibitor, an anti- IGF-1R neutralizing antibody, or an IGF-1R antagonist.
45. The method of claim 44, wherein the small molecule tyrosine kinase inhibitor is ADW-742, NVP-AEW541, or analogs or isomers thereof
46. The method of claim 44, wherein the IGF-1R antibody is  $\alpha$ -IR3.
47. The method of claim 44, wherein the IGF-1R antagonist is JB-1.
- ✓ 48. A method of reducing angiogenesis in a tissue, comprising contacting said tissue with an insulin-like growth factor receptor-1 (IGF-1R) inhibitor.
49. The method of claim 48, wherein said tissue is a tumor tissue.
50. The method of claim 48, wherein said IGF-1R inhibitor is a small molecule tyrosine kinase inhibitor, an anti- IGF-1R neutralizing antibody, or an IGF-1R antagonist.
51. The method of claim 50, wherein the small molecule tyrosine kinase inhibitor is NVP-ADW-742, NVP-AEW541, or analogs or isomers thereof.

- 52. The method of claim 50, wherein the IGF-1R antibody is  $\alpha$ -IR3.
- 53. The method of claim 50, wherein the IGF-1R antagonist is JB-1.
- 54. ✓ A method of inducing apoptosis in a cell, comprising contacting said cell with an insulin-like growth factor receptor-1 (IGF-1R) inhibitor.
- 55. The method of claim 54, wherein said cell is a tumor cell.
- 56. The method of claim 54, wherein said IGF-1R inhibitor is a small molecule tyrosine kinase inhibitor, an anti- IGF-1R neutralizing antibody, or an IGF-1R antagonist.
- 57. The method of claim 56, wherein the small molecule tyrosine kinase inhibitor is ADW-742, NVP-AEW541, or analogs or isomers thereof
- 58. The method of claim 56, wherein the IGF-1R antibody is  $\alpha$ -IR3.
- 59. The method of claim 56, wherein the IGF-1R antagonist is JB-1.